AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (*Currently Amended*) A method of transmitting, via a synchronous digital transport network, a frame-structured synchronous multiplex signal, composed of frames having a payload section and an overhead section, wherein in the payload section comprises of which multiplex units that are multiplexed according to a multiplex hierarchy, wherein the method comprises comprising the step of transmitting a frame of the frame-structured synchronous multiplex signal to be transmitted, including its unchanged overhead section, as payload in a concatenation of newly formed multiplex units.

2. (*Currently Amended*) The A method according to claim 1, wherein the method further comprises comprising the steps of:

creating a number of new multiplex units of the same size, and concatenating these new multiplex units to form a virtual concatenation,

packing the frame, including the overhead section thereof, in payload sections of the concatenated new multiplex units,

creating at least one new frame and embedding the concatenated new multiplex units in the payload section thereof, and

transmitting the at least one new frame via the synchronous transport network.

3. (*Currently Amended*) The A method according to claim 1, wherein the synchronous transport network is a SDH network, wherein the frames are synchronous transport modules of the type STM-N where N=1, 4, 16 or 64, and wherein the multiplex units are virtual containers of the type VC-N where N=11, 12, 2, 3, or 4 or contiguously concatenated virtual containers of the type VC-4-Nc where N=4 or 16, and wherein the newly formed multiplex units are virtual containers of the type VC-N where N=3 or 4.

4. (*Currently Amended*) The A method according to claim 1 wherein, in a first of the newly formed multiplex units, the overhead section of a frame to be transmitted and path overheads of the multiplex units contained in the payload section of this frame are combined, and wherein one of the multiplex units from the payload section of this transport frame without the path overhead thereof is inserted into each of the remaining newly formed multiplex units of the concatenation.

5. (*Currently Amended*) The A method according to claim 1, wherein a frame of the type STM-1, OC-3 or OC-3-3c is transported via two virtually concatenated virtual containers of the type VC-4 or via four virtually concatenated virtual containers of the type VC-3.

6. (*Currently Amended*) The A-method according to claim 1, wherein a frame of the type STM-4, OC-12 or OC-3-12c is transported via five virtually concatenated virtual containers of the type VC-4 or thirteen virtually concatenated virtual containers of the type VC-3.

7. (*Currently Amended*) The A-method according to claim 1, wherein a frame of the type STM-16, OC-48 or OC-3-48c is transported via seventeen virtually concatenated virtual containers of the type VC-4 or via fifty-one fifty-one virtually concatenated virtual containers of the type VC-3.

8. (*Currently Amended*) The A-method according to claim 1, wherein a frame of the type STM-64, OC-192 or OC-3-192c is transported via sixty-eight sixty-eight virtually concatenated virtual containers of the type VC-4.

9. (*Currently Amended*) A multiplexer for a synchronous digital transport network comprising:

at least one tributary input for receiving a first frame-structured synchronous multiplex signal comprising being composed of first frames each having a payload section and an overhead section, wherein in the payload section comprises sections of which multiplex units that are multiplexed according to inserted in accordance with a multiplex hierarchy,

a multiplex device, connected to the tributary input, for creating new multiplex units[[,]] for concatenating the newly formed multiplex units to form a concatenation, and for packing a

received frame, including the unchanged overhead sections thereof, as payload in the

concatenation of the newly formed multiplex units, and

at least one output for creating and transmitting a second, frame-structured synchronous

multiplex signal comprising ~~composed of~~ second frames in whose payload sections the

concatenated, newly formed multiplex units are inserted.

10. (*Currently Amended*) The ~~A~~ multiplexer according to claim 9, further comprising a

switching matrix for selectively switching of multiplex units, wherein the multiplex device is

connected to a matrix input and the output is connected to a matrix output.